

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (canceled)

Claim 2 (withdrawn): The expression plasmid of claim 42 wherein the pol I promoter is proximal to the polyadenylation signal and the pol I terminator sequence is proximal to the pol II promoter.

Claim 3 (withdrawn): The expression plasmid of claim 42 wherein the pol I promoter is proximal to the pol II promoter and the pol I terminator sequence is proximal to the polyadenylation signal.

Claim 4 (withdrawn): The expression plasmid of claim 42 wherein the plasmid has a map selected from the group consisting of pHW2000, pHW11 and pHW12.

Claim 5 (withdrawn; currently amended): An expression plasmid comprising viral cDNA corresponding to a genomic segment of ~~a segmented negative strand RNA~~ an influenza virus, wherein the cDNA is inserted between an RNA polymerase I (pol I) promoter and a regulatory element for the synthesis of vRNA or cRNA with an ~~the~~ exact 3' end, which are in turn inserted between an RNA polymerase II (pol II) promoter and a polyadenylation signal, and wherein the cDNA only encodes an influenza viral protein.

Claim 6 (canceled)

Claim 7 (withdrawn; currently amended): The expression plasmid of claim 6 5, wherein the influenza virus is an influenza A virus.

Claim 8 (withdrawn): The expression plasmid of claim 7, wherein the influenza viral genomic segment (i) encodes a protein selected from the group consisting of a viral polymerase complex protein, M protein, and NS protein; and (ii) is derived from a strain well adapted to grow in cell culture or from an attenuated strain, or both.

Claim 9 (withdrawn; currently amended): The expression plasmid of claim 6 5, wherein the virus is an influenza B virus.

Claim 10 (withdrawn): The expression plasmid of claim 8 wherein the plasmid has a map selected from the group consisting of pHW241-PB2, pHW242-PB1, pHW243-PA, pHW245-NP, pHW247-M, and pHW248-NS.

Claim 11 (withdrawn): The expression plasmid of claim 8 wherein the plasmid has a map selected from the group consisting of pHW181-PB2, pHW182-PB1, pHW183-PA, pHW185-NP, pHW187-M, and pHW188-NS.

Claim 12 (withdrawn): The expression plasmid of claim 7, wherein the influenza viral genomic segment comprises a gene selected from the group consisting of a hemagglutinin (HA) gene and a neuraminidase (NA) gene.

Claim 13 (withdrawn): The expression plasmid of claim 12, wherein the influenza gene is from a pathogenic influenza virus strain.

Claim 14 (withdrawn): The expression plasmid of claim 12, wherein the plasmid has a map selected from the group consisting of pHW244-HA, pHW246-NA, pHW184-HA, and pHW186-NA.

Claim 15 (currently amended): A composition ~~minimum plasmid-based system~~ which generates for the generation of infectious segmented negative strand RNA influenza viruses from cloned viral cDNA comprising a set of plasmids wherein each plasmid comprises one viral genomic segment, and wherein the viral cDNA corresponding to the viral genomic segment is inserted between an RNA polymerase I (pol I) promoter and a regulatory element for the synthesis of vRNA or cRNA with an ~~the~~ exact 3' end, ~~thereby resulting~~ which results in expression of vRNA or cRNA, which are in turn inserted between an RNA polymerase II (pol II) promoter and a polyadenylation signal, ~~thereby resulting~~ which results in expression of viral mRNA and a corresponding viral protein, wherein the expression of the full set of vRNAs or cRNAs and viral proteins results in assembly of an infectious influenza virus.

Claim 16 (currently amended): The ~~minimum plasmid-based system~~ composition of claim 44, wherein the pol I promoter is proximal to the polyadenylation signal and the pol I terminator sequence is proximal to the pol II promoter.

Claim 17 (currently amended): The ~~minimum plasmid-based system~~ composition of claim 44, wherein the pol I promoter is proximal to the pol II promoter and the pol I terminator sequence is proximal to the polyadenylation signal.

Claim 18 (canceled)

Claim 19 (currently amended): The ~~plasmid-based system~~ composition of claim 158, wherein the influenza virus is an influenza A virus.

Claim 20 (currently amended): The ~~plasmid-based system~~ composition of claim 158, wherein the influenza virus is an influenza B virus.

Claim 21 (currently amended): The ~~plasmid-based system~~ composition of claim 19, wherein the viral genomic segment (i) encodes a protein selected from the group consisting of a viral polymerase complex protein, M protein and NS protein; and (ii) is derived from a strain well adapted to grow in cell culture or from an attenuated strain, or both.

Claim 22 (currently amended): The ~~plasmid-based system~~ composition of claim 19, wherein the viral genomic segment comprises hemagglutinin (HA) gene, or neuraminidase (NA) gene, or both; wherein said genes are from a pathogenic influenza virus.

Claim 23 (currently amended): The ~~plasmid-based system~~ composition of claim 19 wherein said ~~system~~ composition comprises one or more plasmids having a map selected from the group consisting of pHW241-PB2, pHW242-PB1, pHW243-PA, pHW244-HA, pHW245-NP, pHW246-NA, pHW247-M, and pHW248-NS.

Claim 24 (currently amended): The ~~plasmid-based system~~ composition of claim 19, wherein said ~~system~~ composition comprises one or more plasmids having a map selected from

Serial No.: 09/844,517
Filed: 04/27/2001
Group Art Unit: 1648

the group consisting of pHW181-PB2, pHW182-PB1, pHW183-PA, pHW184-HA, pHW185-NP, pHW186-NA, pHW187-M, and pHW188-NS.

Claim 25 (currently amended): A host cell comprising the ~~plasmid-based system~~
composition of claim 15.

Claim 26 (currently amended): A host cell comprising the ~~plasmid-based system~~
composition of claim ~~20~~ 18.

Claim 27 (currently amended): A host cell comprising the ~~plasmid-based system~~
composition of claim 19.

Claim 28 (currently amended): A host cell comprising the ~~plasmid-based system~~
composition of claim 22.

Claim 29 (currently amended): A method for producing an influenza ~~negative-strand~~
RNA virus virion, which method comprises culturing the host cell of claim 25 under conditions
that permit production of viral proteins and vRNA or cRNA.

Claims 30-31 (canceled)

Claim 32 (original): A method for producing a pathogenic influenza virion, which
method comprises culturing the host cell of claim 28 under conditions that permit production of
viral proteins and vRNA or cRNA.

Claims 33-38 (canceled)

Claim 39 (currently amended): A method for generating an attenuated influenza ~~negative strand RNA~~ virus, which method comprises:

- (a) mutating one or more viral genes in the ~~plasmid-based system~~ composition of claim 15; and
- (b) determining whether infectious influenza ~~RNA~~ viruses produced by the ~~system~~ composition are attenuated.

Claims 40-41 (canceled)

Claim 42 (withdrawn; currently amended): The expression plasmid of claim 5, wherein the regulatory element for the synthesis of vRNA or cRNA with an ~~the~~ exact 3' end is an RNA polymerase I (pol I) terminator sequence.

Claim 43 (withdrawn; currently amended): The expression plasmid of claim 5, wherein the regulatory element for the synthesis of vRNA or cRNA with an ~~the~~ exact 3' end is a ribozyme sequence.

Claim 44 (currently amended): The ~~minimum plasmid-based system~~ composition of claim 15, wherein the regulatory element for the synthesis of vRNA or cRNA with an ~~the~~ exact 3' end is an RNA polymerase I (pol I) terminator sequence.

Serial No.: 09/844,517
Filed: 04/27/2001
Group Art Unit: 1648

Claim 45 (currently amended): The ~~minimum plasmid-based system~~ composition of claim 15, wherein the regulatory element for the synthesis of vRNA or cRNA with an ~~the~~ exact 3' end is a ribozyme sequence.